

17236 U.S. PTO
021904

Attorney Docket No.: 872.0172.U1(US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Express Mail Certificate

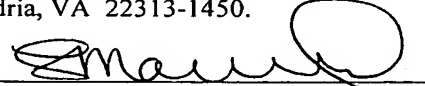
Express Mail mailing label number: EL 981 315 894 US

Date of Deposit: February 19, 2004

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated above and addressed to the Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Lynn Maroldi

(Name of person mailing paper)


(Signature)

Commissioner For Patents
Mail Stop: NEW PATENT APPLICATION
P.O. Box 1450
Alexandria, VA 22313-1450

NEW APPLICATION TRANSMITTAL FORM

Sir:

Transmitted herewith for filing is the patent application of

Inventor(s): **Haifeng Wang, Teemu Sipilä**

For (title): **Method And Apparatus Providing Time Domain Interpolated Channel Estimation With Advanced Noise Suppression For Multicarrier Transmissions.**

Enclosed are the following:

- ☒ Application Cover Page
- ☒ 21 pages of Specification that consists of, 13 pages of Description, 7 pages of Claims and 1 page of Abstract;
- ☒ 11 sheet of drawings;
- ☐ Inventor(s) Declaration;
- ☐ Preliminary Amendment;
- ☐ Priority is hereby claimed from:
 - Patent Application Number filed on ;
 - Patent Application Number filed on ;
 - Patent Application Number filed on ;
- ☐ Certified Copy of priority document(s);
- ☐ English language translation of priority document;
- ☐ Application Data Sheet;
- ☒ Information Disclosure Statement and/or Form PTO 1449 and cited non-U.S. art (if applicable);
- ☐ Assignment and Recordation Form Cover Sheet;
- ☒ Return Receipt Postcard;

22581 U.S. PTO
10/783129
021904

☐ Other:

Assignment Data

- ☒ An assignment of the invention to Nokia Corporation
☐ is attached.
☒ will follow.

Small Entity Status

- ☐ Applicant claims small entity status.

Fees

<input type="checkbox"/> Design Patent Application					\$ 340.00
<input checked="" type="checkbox"/> Utility Patent Application					
	Number Filed	Number Extra	Rate	Basic Fee	
				\$ 770.00	
Total Claims	32 -20 =	0	x	\$ 18.00	\$ 216.00
Independent Claims	3 - 3 =	0	x	\$ 86.00	\$
Assignment Recordal		0	x	\$ 40.00	\$
TOTAL FEES					<u>\$ 986.00</u>

- ☒ A check in the amount of \$986.00 in payment of the filing fee is enclosed.
- ☐ Charge \$ to Deposit Account No. 50-1924
- ☒ The Commissioner is hereby authorized to charge any additional fees under 37 C.F.R. 1.16 and 1.17 which may be required for this communication or during the entire pendency of this patent application, or credit any overpayment, to Deposit Account No. 50-1924.

Correspondence

Address all future communications to: **Customer No.: 29,683**

Direct telephone calls to Harry F. Smith at (203) 925-9400

Direct facsimiles to (203) 944-0245

2/19/2004
Date


Harry F. Smith (Reg. No.: 32,493)

Customer No.: 29,683

Harrington & Smith, LLP
4 Research Drive
Shelton, CT 06484-6212
(203) 925-9400